PTO/SB/08B (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE on Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

## Complete if Known Substitute for form 1449B/PTO 09/994,299 **Application Number** INFORMATION DISCLOSURE NOVEMBER 26, 2001 Filing Date First Named Inventor MIRON ABRAMOVICI STATEMENT BY APPLICANT **Group Art Unit** (use as many sheets as necessary) **Examiner Name** Attorney Docket Number of 487-012 Sheet

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
DT	1	C. STROUD, S. WIJESURIYA, C. HAMILTON, AND M. ABRAMOVICI, "Built-In Self-Test of FPGA Interconnect," Proc. Intn'l. Test Conf., pp. 404-411, 1998.	
07	2	I. HARRIS AND R. TESSIER, "Interconnect Testing in Cluster-Based FPGA Architectures", Proc. AMC/IEEE Design Automation Conf., 2000	_
DT	3	I. HARRIS AND R. TESSIER, "Diagnosis of Interconnect Faults in Cluster-Based FPGA Architectures", Proc. IEEE Intn'l Conf. on Computer Aided Design, 2000.	-
07	4	M. ABRAMOVICI, ET AL., "Using Roving STARs for On-LineTesting and Diagnosis of FPGAs in Fault-Tolerant Applications," Proc. IEEE Intn'l. Test Conf., pp. 973-982, 1999.	
DT	5	M. ABRAMOVICI, ET AL., "Improving On-Line BIST-Based Diagnosis for Roving STARs," Proc. IEEE Intn'l On-Line Testing Workshop, 2000.	
DT	6	K. ROY AND S. NAG, "On Routability for FPGAs Under Faulty Conditions," IEEE Trans on Computers, Vol. 44, pp. 1296-1305, 1995.	
		RECEIVED	
	<u> </u>	MAR 1 4 2007	-
		Technology Center 2	
······································	ļ		

Examiner	Office of Elina	Date	3/11/00
Signature	·/////////////////////////////////////	Considered	3(9/07

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.





Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
n Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB Under the Paperw

Complete if Known Substitute for form 1449A/PTO Application Number 09/994,299 INFORMATION DISCLOSURE **NOVEMBER 26, 2001** Filing Date MIRON ABRAMOVICI STATEMENT BY APPLICANT **First Named Inventor Art Unit** (use as many sheets as necessary) **Examiner Name** Sheet of Attorney Docket Number 487-012

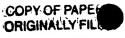
			U.S. PATE	NT DOCUMENTS		1
Examiner	Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where	Ī
Initials'		Number - Kind Code <sup>2</sup> (if known	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear	
		US-				
		us-				1
	ļ	US-				•
		US-			<u> </u>	
		US-			RECEI	/FD
		US-			neoui	Y L D
······································	ļ	US-	***************************************			2002
		US-			MAR 2 1	2002
***		US-				Ì
	ļ	US-			Technology C	enter 2100
<b></b>	ļ	US-			Toolmology	
	ļ	US-				
	ļ	US-				ı
		US-				
***************************************		US-				
		US-				
	ļ	US-				l
		US-				1
		US-				Į
		US-				1

		FORE	IGN PATENT D	OCUMENTS		
Examiner Initials	Cite No. <sup>1</sup>	Foreign Patent Document  Country Code 3 - Number 4 - Kind Code 5 (# known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	<b>T</b> 6

Signature Considered Considered	Examiner Signature	Davidum Date Consider	ered 3/1/04
---------------------------------	-----------------------	-----------------------	-------------

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.



PTO/SB/08B (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
95, no persons are required to respond to a collection of information unless it contains a valid OMB Under the Pape control number.

## Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary) Sheet of

Con	nplete if Known
Application Number	09/994,299
Filing Date	NOVEMBER 26, 2001
First Named Inventor	MIRON ABRAMOVICI
Group Art Unit	2133
Examiner Name	
Attorney Docket Number	487-012

	<del>,</del>	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS		1
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>	
97	1	A. STEININGER AND SCHERRER, "On the Necessity of On-Line BIST in Safety Critical Applications," Proc. 29th Fault-Tolerant Computing Symp", pp. 208-215, 1999.		
07	2	M. RENOVELL, J. PORTAL, J. FIGUERAS, AND Y. ZORIAN, "Testing the Interconnect of RAM-Based FPGA," Proc. IEEE Design & Test of Computers, Vol. 15, No. 1, pp. 45-50, 1998.	RI	CEIVED
DT	3	S. DUTT AND F. HANCHECK, "REMOD: A New Methodology for Designing Fault-Tolerant Arithmetic Circuits," IEEE Trans. on VLSI Systems, Vol. 5, pp. 34-56, 1997.	MA	R 2 1 2002
DT	4	S. DUTT, ET AL., "Efficient Incremental Rerouting for Fault Reconfiguration in Field 160 Programmable Gate Arrays," ACM/IEEE Intn'l Conf. on Computer Aided Design," 1999.	hno	logy Center 210
DT	5	J. EMMERT AND D. BHATIA, "Reconfiguring FPGA Mapped Designs with Applications to Fault Tolerance and Reconfigurable Computing", Lecture Notes on Comp. Sci., Vol. 1304, pp. 141-150, 1997.		:
DT	6	J. EMMERT AND D. BHATIA, "A Fault Tolerant Technique for FPGAs", Journal of Electronic Testing, Vol. 16, pp. 591-606, 2000.		
07	7	F. HANCHEK AND S. DUTT, "Methodologies for Tolerating Logic and Interconnect Faults in FPGAs," IEEE Trans.on Computers, pp. 15-33, 1998.		
D7	8	J. LACH, ET AL., "Low Overhead Fault-Tolerant FPGA Systems," IEEE Trans. on VLSI Systems, Vol. 6, No. 2, pp. 212-221, 1998.		
07	9	J. LACH, ET AL., "Algorithms for Efficient Runtime Fault Recovery on Diverse FPGA Architectures," Proc. Intn'l. Symp. on Defect and Fault Tolerance In VLSI Systems, 1999.		
DT	10	N. MAHAPATRA AND S. DUTT, "Efficient Network Flow Based Technique for Dynamic Fault Reconfiguration in FPGAs", Proc. Fault Tolerant Computing Symp., pp. 122-129, 1999.		

Examiner Signature Suraling	Date Considered	3/11/04
-----------------------------	--------------------	---------

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE sare required to respond to a collection of information unless it contains a valid OMB Under the Paperwork Reduction Act of 939,700 pass

Complete if Known Substitute for form 1449A/PTO 09/994,299 **Application Number** INFORMATION DISCLOSURE **NOVEMBER 26, 2001** Filing Date STATEMENT BY APPLICANT First Named Inventor MIRON ABRAMOVICI 2133 **Art Unit** (use as many sheets as necessary) **Examiner Name** Attorney Docket Number 487-012 Sheet 1 of

			U.S. PATI	ENT DOCUMENTS	
Examiner		Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant
Initials*	No.1	Number-Kind Code <sup>2</sup> (if known	MM-DD-YYYY	Applicant of Orea Bodament	Figures Appear
i	ļ	US-			
	ļ	US-			
		US-			
	<u> </u>	US-			
		US-			RECEIVED MAR 2 9 2002
		US-			nLO-
		US-			2 9 2007
		US-			MAR & J LOOL
		US-			0100
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	US-			Technology Center 2 <sup>-</sup>
		US-			100/1/10/-03
		US-			
		US-			
		US-			
Ī		US-			
		US-			

		FORE	IGN PATENT D	OCUMENTS		
Examiner Initials	Cite No.1	Foreign Patent Document  Country Code 3 - Number 4 - Kind Code 5 (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	<b>⊤</b> 6
			·			

Examiner Signature	Durcton	Date Considered	3/11/04

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known Substitute for form 1449B/PTO 09/994,299 **Application Number** INFORMATION DISCLOSURE NOVEMBER 26, 2001 Filing Date STATEMENT BY APPLICANT First Named Inventor **MIRON ABRAMOVICI** Group Art Unit 2133 (use as many sheets as necessary) **Examiner Name** of Attorney Docket Number 487-012 Sheet

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
DT	1	C. ZENG, N. SAXENA and E. McCLUSKEY, "Finite State Machine Synthesis With Concurrent Error Detection", Proc. IEEE Int'l. Test Conf., 1999, pp. 672-6789.	
		P E JCan	
		MAR 2 6 MOIZ E	
***************************************		MAR 2 6 2002 B	
		MAR 2 9 2002	
······		Technology Center 2100	

	Examiner Signature	Davidton	Date Considered	3/11/04
•	Oldingraid		T GOLIGIAGE	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.



Under the Paperwork

control number

PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE do persons are required to respond to a collection of information unless it contains a valid OMB

Complete if Known Substitute for form 1449A/PTO 09/994,299 **Application Number** INFORMATION DISCLOSURE **NOVEMBER 26, 2001 Filing Date** STATEMENT BY APPLICANT **First Named Inventor** MIRON ABRAMOVICI **Art Unit** 2133 (use as many sheets as necessary) Examiner Name Attorney Docket Number 487-012 Sheet of

			U.S. PATI	ENT DOCUMENTS	
Examiner Initials	Cite No. 1	Document Number Number - Kind Code <sup>2</sup> (if known	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US-			Tige.co. ppod.
		us-			
		US-			
	ļ	US-			DEOEWED
	ļ	us-	·*···		RECEIVED
		US-			
·	ļ	US-	······································		APR 0 2 2002
	ļ	US-			William Committee to the committee of th
	ļ	US-			Technology Center 2100
Accession and the second secon	<b>†</b>	US-			<b>3</b>
		US-			
	ļ	US-			
	ļ	US-			
	<u> </u>	US-	······································		
		US-			
	l	US-			

	FOREIGN PATENT DOCUMENTS						
Examiner Initials		Foreign Patent Document  Country Code 3 - Number 4 - Kind Code 5 (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Т,	
	~					<u> </u>	
						-	
			***************************************				

Examiner Signature	Davidson	Date Considered	3/11/04		



<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at <a href="www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.



MAR 2 9 2002 Agustion Act of 1995, no persontrol number.

PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
6, no persons are required to respond to a collection of information unless it contains a valid OMB

+

Complete if Known Substitute for form 1449B/PTO 09/994,299 **Application Number** INFORMATION DISCLOSURE NOVEMBER 26, 2001 Filing Date First Named Inventor MIRON ABRAMOVICI STATEMENT BY APPLICANT **Group Art Unit** 2133 (use as many sheets as necessary) **Examiner Name** of Attorney Docket Number Sheet 487-012

	<del></del>	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS		
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>	
PQ	1	F. LOMBARDI, D.ASHEN, X. CHEN, and W.K. HUANG, "Diagnosing Programmable Interconnect Systems for FPGAs," Proc. ACM/SIGDA Intn'l. Symp. on FPGAs, pp. 100-106, 1996.		
DT	2	J. EMMERT and D. BHATIA, "Incremental Routing in FPGAs", Proc. IEEE Int'l. ASIC Conf., pp. 302-305, 1998.		
		RE	CE	IVED
		APR	0	2 2002
		Technol	ogy	Center 210
Examine	-	Ozarici (no Date 3/4/A1)	=	

Signature Considered 3 (1) 69

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance

and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.